LOW NOX REBUILD SERVICE LETTER

In compliance with the recent agreement reached between Mack Trucks and EPA Mack Trucks is notifying rebuilders of Mack and Renault VI manufactured engines of certain requirements that must be performed during rebuild of certain Mack and Renault engines.

Engines covered by the agreement are certain Mack manufactured electronically controlled E7 and E-TECH engines manufactured between January 1, 1994 and September 22, 1998, engine serial numbers 4B through 8R. Attached is a list of E7 and E-TECH engine models with their assigned V-MAC data file part numbers. If an engine model and its assigned V-MAC data file part number appears on the list that engine is included in the agreement.

Certain Renault VI manufactured MIDR 06.02.26 engines included were manufactured between January 1, 1993 and October 31, 1998.

Renault MIDR 06.02.26 L/2 engines are not included in the agreement.

The following are guidelines by engine model that determine if an engine rebuild is covered by the requirements of the agreement with EPA.

Renault VI MIDR 06.02.26

Engines with less than 185,000 miles at the time of overhaul in which 2 or more cylinder components are replaced in all 6 cylinders. Engines with more than 185,000 miles at the time of overhaul in which 2 or more cylinder components were replaced in 4 or more cylinders. Cylinder components are defined as: piston assemblies

piston ring assemblies

connecting rods

cylinder liners

Renault engines rebuilt under the above definition <u>MUST</u> have a LOW NOx Rebuild Kit installed before the engine is returned to service. The LOW NOx Rebuild Kit consists of a data file change and an engine label. After the data file change, the label included in the rebuild kit <u>MUST</u> be completed with the date of the data file change and the code of the Mack dealer where the data file was changed. The completed label then <u>MUST</u> be installed on the valve cover next to the existing emission sticker before the engine is returned to service.

Mack E7 and E-TECH (electronically controlled)

Engines with less than 290,000 miles at the time of overhaul in which 2 or more cylinder components are replaced in all 6 cylinders. Engines with more than 290,000 miles at the time of overhaul in which 2 or more cylinder components were replaced in 4 or more cylinders. Cylinder components are defined as: piston assemblies

piston ring assemblies connecting rods

cylinder liners

E7 and E-TECH engines rebuilt under the above definition <u>MUST</u> have a LOW NOx Rebuild Kit installed before the engine is returned to service. The LOW NOx Rebuild Kit consists of a Mack data file change and an engine label. After the data file change, the label included in the rebuild kit <u>MUST</u> be completed with the date of the data file change and the code of the Mack dealer where the data file was changed. The completed label then <u>MUST</u> be installed on the valve cover next to the existing emission sticker before the engine is returned to service.

Short Blocks and Basic Engine Assemblies

When replacing a Mack or Renault engine covered by the Low NOx Rebuild agreement with either a short block or basic engine the instructions included with the short block or basic engine must be followed. The engine MUST have a LOW NOx Rebuild Kit installed before the engine is returned to service. The LOW NOx Rebuild Kit consists of a data file change and an engine label. After the data file change, the label included in the rebuild kit MUST be completed with the date of the data file change and the code of the Mack dealer where the data file was changed. The completed label then MUST be installed on the valve cover next to the existing emission sticker before the engine is returned to service.

Non-Mack Affiliated Engine Rebuilders

When a non-Mack affiliated engine rebuilder has rebuilt a Mack or Renault engine covered by the Low NOx Rebuild agreement the engine must be brought to an authorized Mack dealer to have a Low NOx Rebuild Kit installed before the engine is returned to service. The Low NOx Rebuild Kit consists of a data file change and an engine label. After the data file change, the label included in the rebuild kit MUST be completed with the date of the data file change and the code of the Mack dealer where the data file was changed. The completed label then MUST be installed on the valve cover next to the existing emission sticker before the engine is returned to service.

Recovery of labor expense for installing rebuild kits is through normal Mack warranty claim procedures. Labor allowance is 0.7 hours. Claims may be filed for installation of the rebuild kit for engines rebuilt by authorized Mack dealers or engines rebuilt by non-Mack affiliated rebuilders.

PROCEDURE TO BE FOLLOWED BY NON MACK AFFILIATED REBUILDERS TO OBTAIN LOW NOX REBUILD KITS

In compliance with the recent agreement reached between Mack Trucks and EPA Mack Trucks is making available to rebuilders of Mack and Renault VI manufactured engines Low NOx Rebuild Kits to be installed on certain Mack and Renault VI engines. Engines covered by the agreement are certain Mack manufactured electronically controlled E7 and E-TECH engines manufactured between January 1, 1994 and September 22, 1998, engine serial numbers 4B through 8R. Attached is a list of E7 and E-TECH engine models with their assigned V-MAC data file part numbers. If an engine model and its assigned V-MAC data file part number appears on the list that engine is included in the agreement.

Certain Renault VI manufactured MIDR 06.02.26 engines included were manufactured between January 1, 1993 and October 31, 1998.

Renault MIDR 06.02.26 L/2 engines are not included in the agreement.

The following are rebuild guidelines by engine model that determine if an engine rebuild is covered by the requirements of the agreement with EPA.

Renault VI MIDR 06.02.26

Engines with less than 185,000 miles at the time of overhaul in which 2 or more cylinder components are replaced in all 6 cylinders. Engines with more than 185,000 miles at the time of overhaul in which 2 or more cylinder components were replaced in 4 or more cylinders. Cylinder components are defined as:

piston assemblies piston ring assemblies connecting rods cylinder liners

Mack E7 and E-TECH (electronically controlled)

Engines with less than 290,000 miles at the time of overhaul in which 2 or more cylinder components are replaced in all 6 cylinders. Engines with more than 290,000 miles at the time of overhaul in which 2 or more cylinder components were replaced in 4 or more cylinders. Cylinder components are defined as:

piston assemblies piston ring assemblies connecting rods cylinder liners

When a non-Mack affiliated engine rebuilder has rebuilt a Mack or Renault engine covered by the Low NOx Rebuild agreement the engine must be brought to an authorized Mack dealer to have a Low NOx Rebuild Kit installed before the engine is returned to

service. The Low NOx Rebuild Kit consists of a data file change and an engine label. After the data file change, the label included in the rebuild kit will be completed with the date of the data file change and the code of the Mack dealer where the data file was changed. The completed label then will be installed on the valve cover next to the existing emission sticker before the engine is returned to service.

Recovery of labor expense for installing rebuild kits is through normal Mack warranty claim procedures and will be free of charge to rebuilders. Labor allowance is 0.7 hours. Claims will be filed for installation of the rebuild kit by the Mack dealer who installed the kit.

ENGINES INCLUDED IN THE LOW NOX REBUILD PROGRAM

Engine Model	V-MAC Data File Part Numbers								
EM7-275	1MS571P2								
EM7-300	1MS536P18	1MS536P3	1MS541P3	1MS543P3	1MS548P3	1MS549P3	1MS550P3	1MS559P3	1MS568P3
	1M5571P3	1MS585P3							
E7:300	1MS571P14	1MS571P15	1MS571P15	1MS571P4		-			
E7-310/330	1MS571P12								
E7-330/350	1MS548P11	1MS559P11	1MS571P11	1MS585P11	•				<u> </u>
E7-350	1MS536P17	1MS535P20	1MS536P6	1MS541P6	1MS543P6	1MS548P6	1MS549P6	1MS557P6	1MS559P6
	1MS550P6	1MS557P19	1MS561P6	1MS568P6	1MS571P6	1MS577P6	1MS585P6	1MS588P6	-
E7-355/380	1MS548P13	1MS559P13	1MS568F13	1MS571P13	1MS585P13	1MS588P13			
E7-375	1MS536P10								· · · · · · · · · · · · · · · · · · ·
E7-400	1MS536P7	1MS541P7	1MS543P7	1MS548P7	1MS549P7	1MS557P20	1MS557P7	1MS559P7	1MS585P7
	1MS561P7	1MS568P7	1MS571P7	1MS577P20	1MS577P7				
E7-427	1MS536P8	1MS543P8	1MS548P8	1MS549P8	1MS559P8	1MS561P8	1MS568P8	1MS571PB	1MS577P8
	1MS585P8								
E7-454	1MS548P9	1MS548P9	1MS550P9	1MS559P9	1MS585P9				ANIMA ANIMA
E7-460	1MS561P9	1MS568P9	1MS571P9	1M\$588P9		p			